WHAT IS CLAIMED IS:

1. An X-ray detector, comprising:

an X-ray converter, adapted to convert X-ray radiation to light;

a photodiode sensor, including least two photodiode elements, adapted to detect light produced by the X-ray radiation conversion in the X-ray converter; and

a nonlinearly absorbent filter, arranged between the X-ray converter and the photodiode sensor.

2. The X-ray detector as claimed in claim 1, wherein the filter is at least partially composed of photochromic material.

3. The X-ray detector as claimed in claim 1, wherein the filter is at least partially composed of at least one of phototropic glass and plastic.

4. The X-ray detector as claimed in claim 3, wherein the filter includes fiber optics composed of at least one of phototropic glass and plastic.

5. The X-ray detector as claimed in claim 4, wherein the photodiode sensor is at least partially composed of amorphous semiconductor materials.

6. The X-ray detector as claimed in claim 5, wherein the photodiode sensor is at least partially composed of at least one of amorphous silicon and of an amorphous silicon alloy.

7. An X-ray device including an X-ray detector as claimed in claim 1.

8. A method for detection of X-ray radiation, comprising:

converting X-ray radiation to light;

filtering the light through a nonlinearly absorbent filter; and

detecting the light, produced by the converted X-ray radiation and filtered through the nonlinearly absorbent filter, by a photodiode sensor including photodiode elements.

9. The method as claimed in claim 8, wherein photochromic material is used for filtering.

10. The method as claimed in claim 8, wherein at least one of phototropic glass and plastic is used for filtering.

11. The method as claimed in claim 10, wherein the light is filtered through fiber optics composed of at least one of phototropic glass and plastic.

12. The method as claimed in claim 9, wherein at least one of phototropic glass and plastic is used for filtering.

13. The method as claimed in claim 8, wherein the light is filtered through fiber optics composed of at least one of phototropic glass and plastic.

14. The X-ray detector as claimed in claim 2, wherein the filter is at least partially composed of at least one of phototropic glass and plastic.

15. The X-ray detector as claimed in claim 14, wherein the filter includes fiber optics composed of at least one of phototropic glass and plastic.

16. The X-ray detector as claimed in claim 1, wherein the photodiode sensor is at least partially composed of amorphous semiconductor materials.

17. The X-ray detector as claimed in claim 1, wherein the photodiode sensor is at least partially composed of at least one of amorphous silicon and of an amorphous silicon alloy.

18. An apparatus for detection of X-ray radiation, comprising:
means for converting X-ray radiation to light;
means for filtering the light through a nonlinearly absorbent filter; and

means, including photodiode elements, for detecting the light filtered through the nonlinearly absorbent filter.

19. The apparatus as claimed in claim 18, wherein the means for filtering is at least partially composed of photochromic material.

20. The apparatus as claimed in claim 18, wherein the means for filtering is at least partially composed of at least one of phototropic glass and plastic.

21. The apparatus as claimed in claim 18, wherein the means for filtering includes fiber optics composed of at least one of phototropic glass and plastic.

22. The apparatus as claimed in claim 18, wherein the sensing means is at least partially composed of amorphous semiconductor materials.

23. The apparatus as claimed in claim 18, wherein the sensing means is at least partially composed of at least one of amorphous silicon and of an amorphous silicon alloy.

24. An X-ray device including an apparatus as claimed in claim 18.

25. An X-ray detector, comprising:

X-ray converter means for converting X-ray radiation to light;

sensing means, including least two photodiode elements, for detecting light produced by the X-ray radiation conversion in the X-ray converter; and

means for filtering the light, including a nonlinearly absorbent filter arranged between the X-ray converter means and the sensing.

26. The X-ray detector as claimed in claim 25, wherein the means for filtering is at least partially composed of photochromic material.

27. The X-ray detector as claimed in claim 25, wherein the means for filtering is at least partially composed of at least one of phototropic glass and plastic.

28. The X-ray detector as claimed in claim 25, wherein the means for filtering includes fiber optics composed of at least one of phototropic glass and plastic.

29. The X-ray detector as claimed in claim 25, wherein the sensing means is at least partially composed of amorphous semiconductor materials.

30. The X-ray detector as claimed in claim 25, wherein the sensing means is at least partially composed of at least one of amorphous silicon and of an amorphous silicon alloy.

31. An X-ray device including an X-ray detector as claimed in claim 25.